

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:** Casey, William**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-029469**Date Inspected:** 22-Apr-2013**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1730**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site**CWI Name:** Bernie Docena**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** SAS Tower**Summary of Items Observed:**

Caltrans Quality Assurance Inspector (QA) Joe Adame was at the American Bridge/Fluor (ABF) job site at Yerba Buena Island between the times noted above in order to monitor Quality Control functions and the in process work being performed by ABF personnel. The following items were observed:

**In Process Visual Inspection**

RWR201206-044

ESW W-043 "V"-Face B

This QA observed that ABF/JV welder Chris Bruce (WID-8981) had completed weld repair at tower Electroslag Weld "ESW" designated as V- Face B, Original Y= 3550mm. Welding was performed with Shielded Metal Arc Welding (SMAW) with 4.0mm diameter E7018-MH4-R electrode and in accordance with ABF Welding Procedure Specification (WPS) ABF-WPS-D1.5-1000R-03. During welding, ABF Quality Control Inspector (QC) Bernie Docena was observed monitoring the welding parameters throughout the shift. The repair area will be reinspected with UT/MT after the required cooling time of 48 hrs as detailed in section 12.

**Pre-repair Verification**

RWR-202304-005

QA observed at random intervals ABF/JV QC Inspector Bernie Docena performing Ultrasonic Testing (UT) verification of ESW weld repair locations prior to the start of performing air carbon arc gouging for defect removal. Locations of repairs were noted as:

ESW S041 "L" Face A

Y= 5740mm, +300mm below repair only due to access

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D= 42mm

L=75mm

QA also performed a UT verification of proposed repair & HAZ areas located 300 mm below of repair areas to be reinspected after welding. No recordable indications were noted in the HAZ area. See TL-6027 for additional information on items inspected on this date.

### In Process Visual Inspection

RWR201208-009

ESW S-045 "G"-Face A

This QA observed, at random intervals, ABF/JV welder Mike Jimenez (WID-4671) performing Shielded Metal Arc Welding (SMAW) with 4.0mm diameter E7018-MH4-R electrode and in accordance with ABF Welding Procedure Specification (WPS) ABF-WPS-D1.5-1000R-03. Prior to welding preheat was being maintained to over 300° degrees Fahrenheit using a Miller ProHeat 35 unit with heat induction blankets. Welding was performed on tower Electroslag Weld "ESW" designated as G- Face A, Original Y=4360mm, Repair length 4300mm~4900mm. During welding, ABF Quality Control Inspector (QC) Bernie Docena was observed monitoring the welding parameters throughout the shift.

### Summary of Conversations:

Only general conversations with ABF/JV QC NDT personnel relevant to testing and work performed during this shift.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Gary Thomas (916) 764-6027, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Adame, Joe	Quality Assurance Inspector
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<b>Reviewed By:</b>	Mertz, Robert	QA Reviewer
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